

Conservation Estate Portfolio for the Henslow's Sparrow (Ammodramus henslowii)

Bird Conservation Region 23 (Prairie Hardwood Transition)



http://www.birds.cornell.edu/AllAboutBirds/BirdGuide/Henslows_Sparrow_dtl.html

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Preface

Mapped patterns in the distribution and abundance of rare or focal species can be useful in identifying priority areas for conservation. We have modeled and mapped rare bird abundance in the upper midwestern United States for more than a dozen species of conservation concern. Our work has focused on the Prairie Hardwood Transition (Bird Conservation Region 23). This portfolio describes the conservation context of one species in the Prairie Hardwood Transition. We outlined areas of peak predicted abundance relative to federal, tribal, and state managed lands. This juxtaposition of predicted relative abundance and land management authorities is the conservation estate for this focal species. Identifying these land management authorities relative to areas in which the species is most abundant may help to focus conservation resources in those areas in which they may do the most good.

Data References

Major Cities depicted using data acquired from the National Atlas of the United States web site (http://nationalatlas.gov/mld/citiesx.html). Major cities were determined to be those that had a population in 2000 of greater than 5,000 persons.

Major Roads depicted using data acquired from the National Atlas of the United States web site (http://nationalatlas.gov/mld/roadtrl.html). Roads were determined to be Major if they were classified as *Principal Highway* or *Limited Access Highway* according to the data field "Feature".

States data were created by Geographic Data Technology, Inc. This data was published by Environmental Systems Research Institute (ESRI) and made available for distribution.

Counties data were acquired from the National Atlas of the United States web site (http://www.nationalatlas.gov/mld/countyp.html).

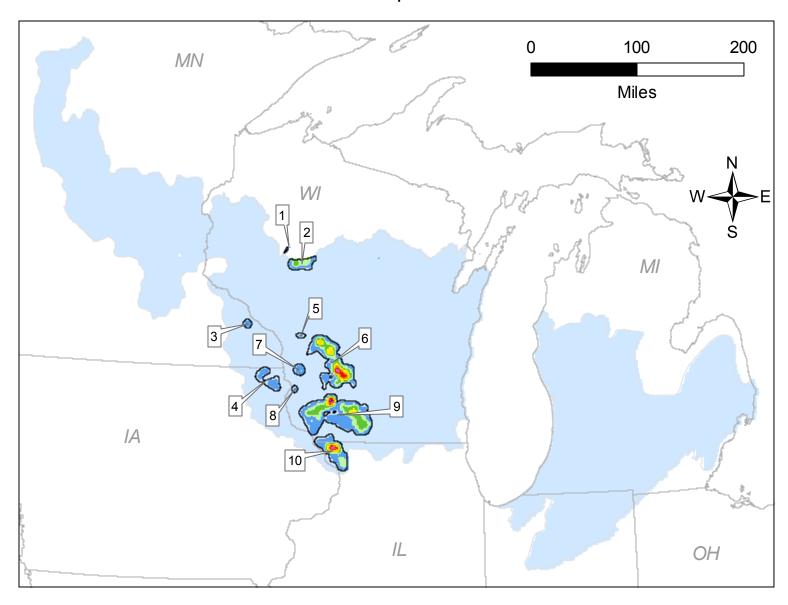
Federal and State lands depicted using Protected Areas Database, version 4: (http://www.consbio.org/cbi/projects/PAD/index.htm). Federal and State lands were identified based upon the data field "Owner".

Tribal lands depicted using data acquired from the National Atlas of the United States web site (http://www.nationalatlas.gov/mld/indlanp.html).

Methodology

For detailed methodology on avian abundance modeling, see: http://www.umesc.er.usgs.gov/terrestrial/migratory_birds/bird_conservation_methods.html

Predicted Relative Abundance and 10-Highest Peaks of Predicted Relative Abundance for the Henslow's Sparrow



Top 10 Hotspots

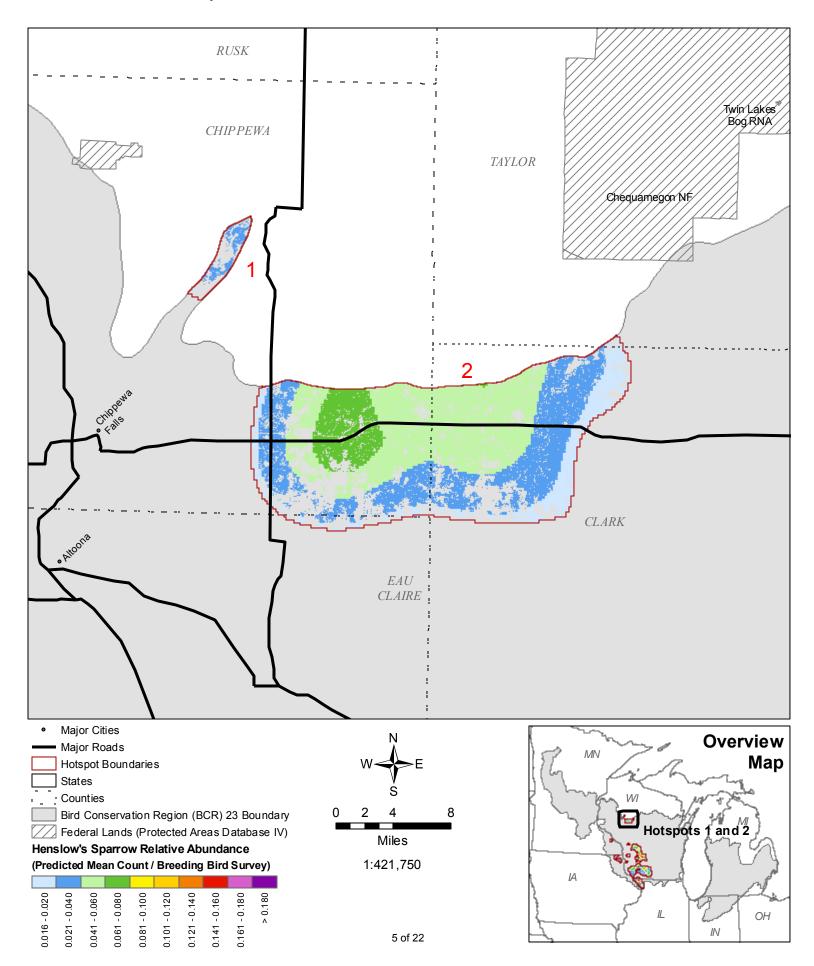
States

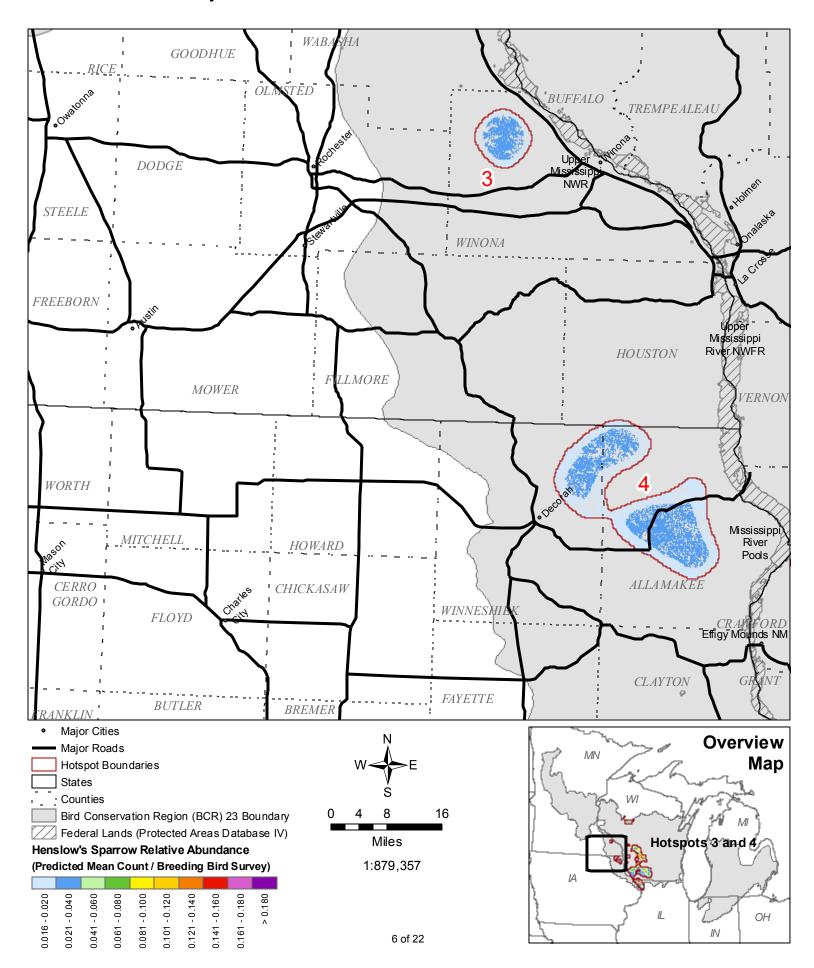
Bird Conservation Region (BCR) 23 Boundary

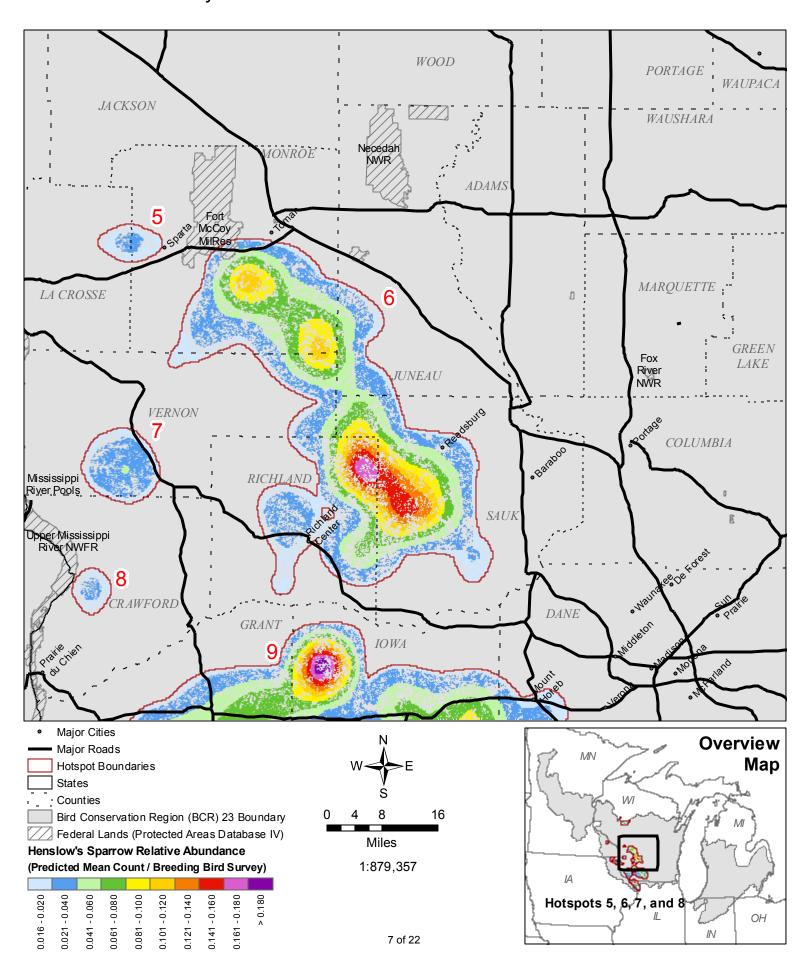
Henslow's Sparrow Relative Abundance

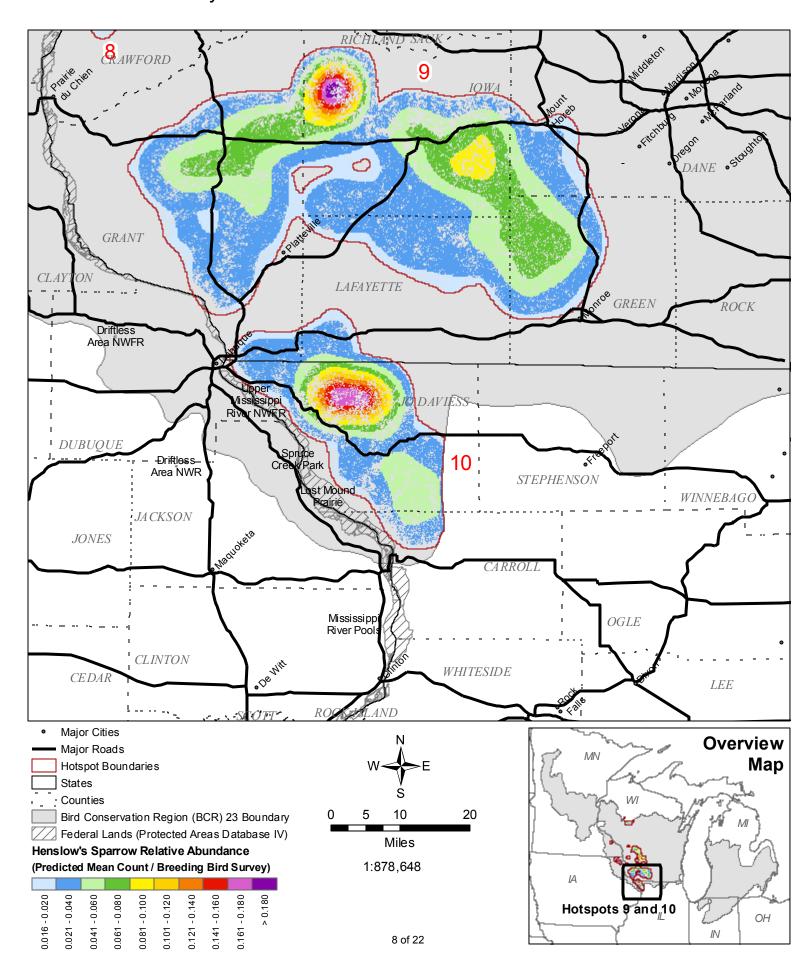
(Predicted Mean Count / Breeding Bird Survey)

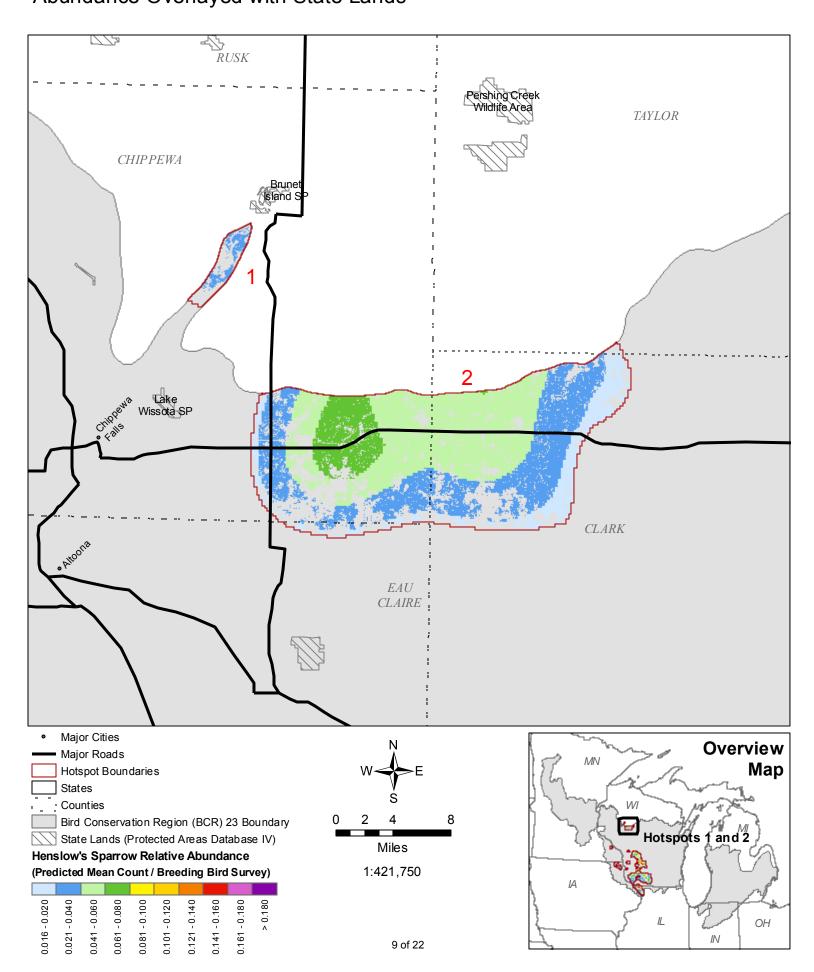
0.001 - 0.020	0.021 - 0.040	0.041 - 0.060	0.061 - 0.080	0.081 - 0.100	0.101 - 0.120	0.121 - 0.140	0.141 - 0.160	0.161 - 0.180	0.181 - 0.200



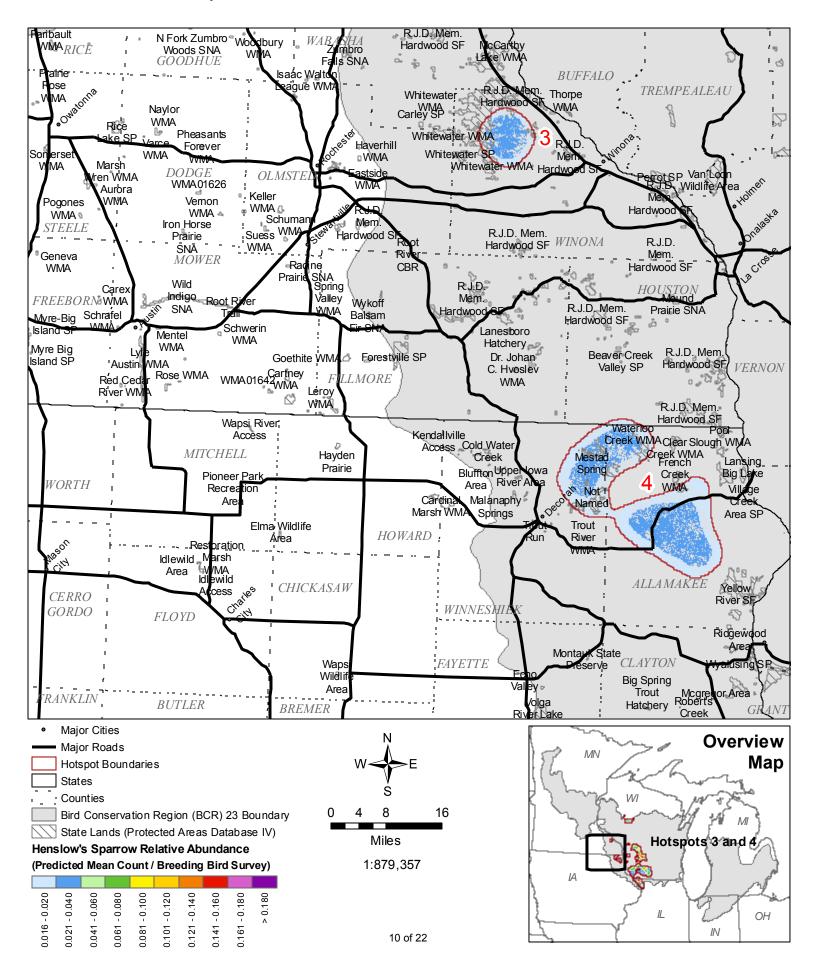


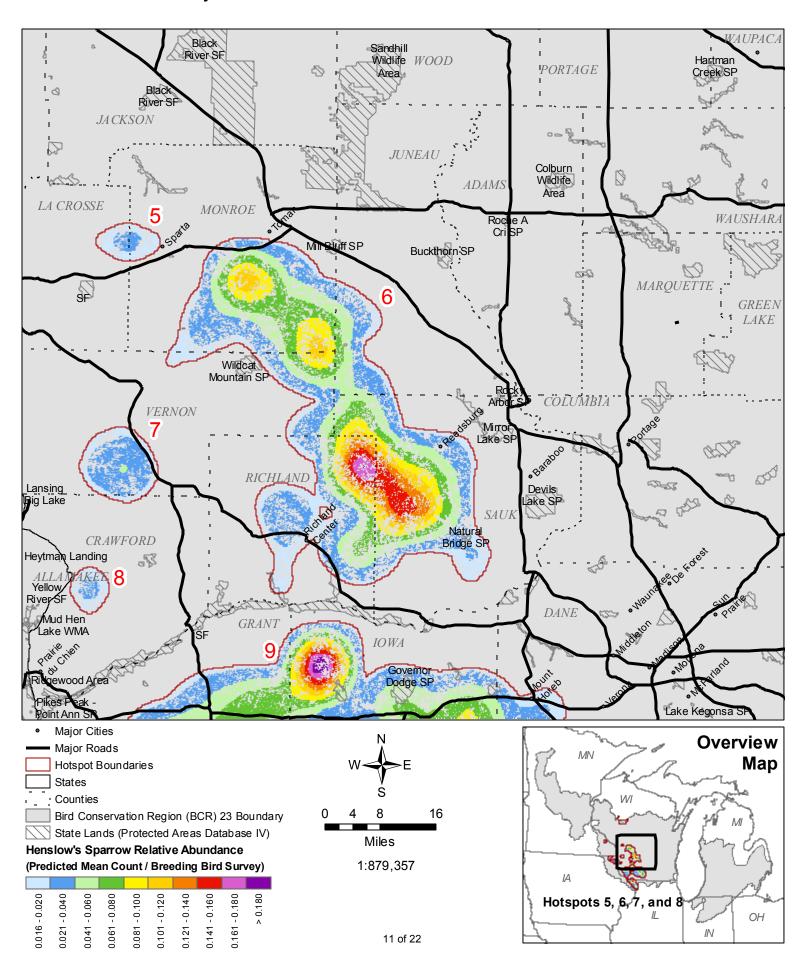


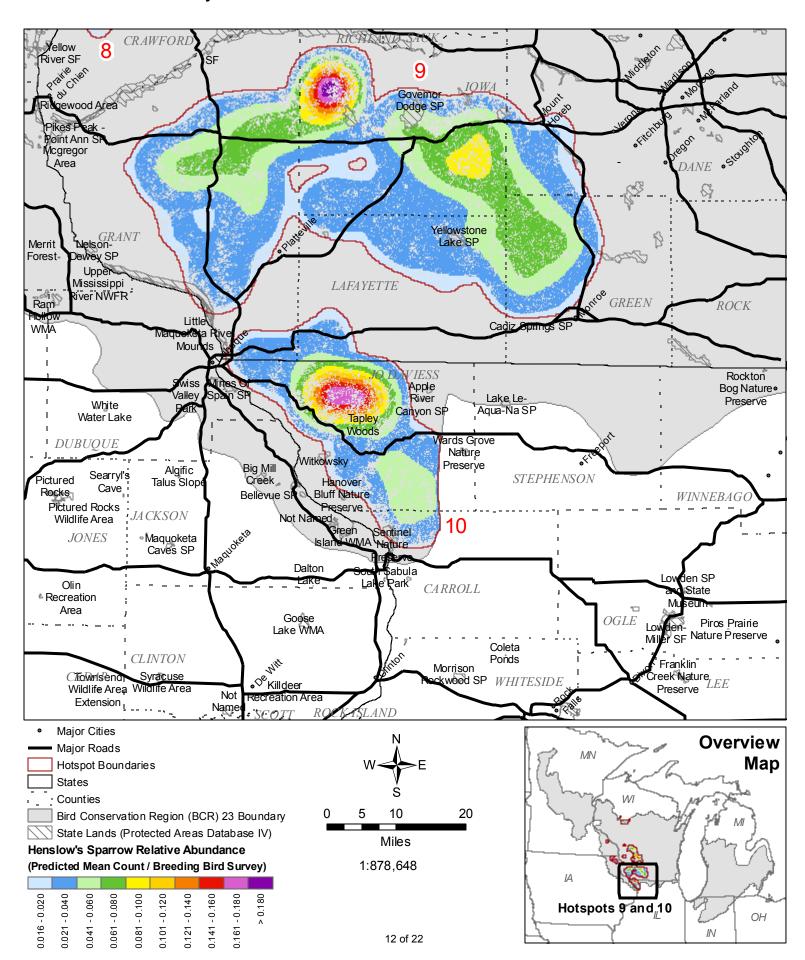


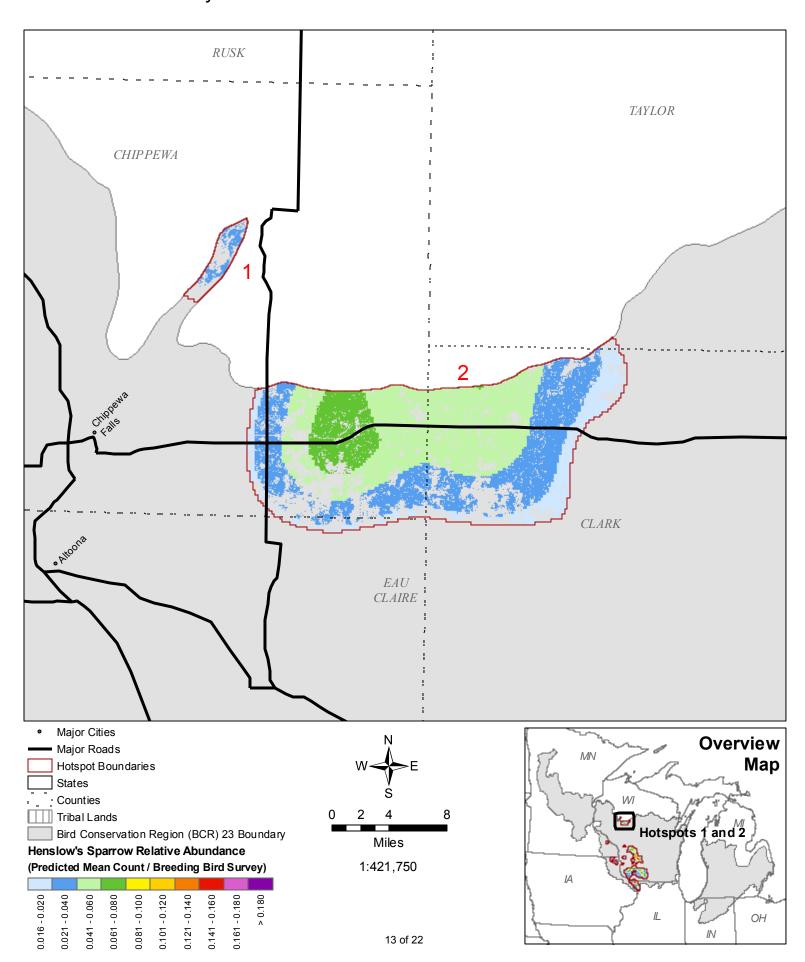


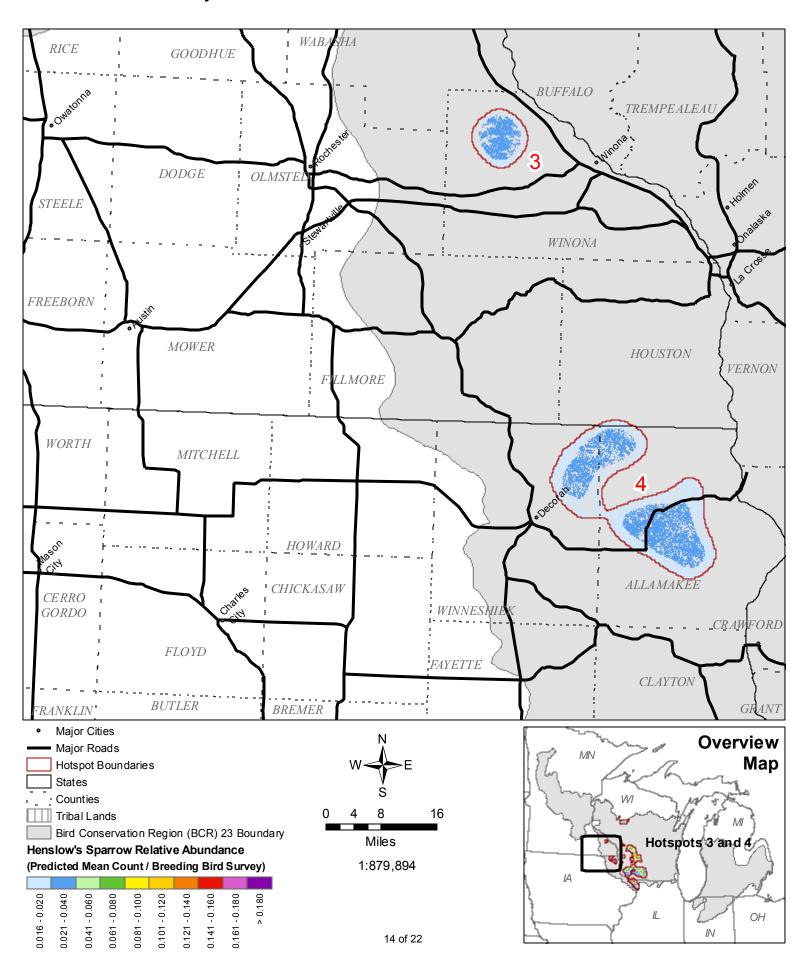
Henslow's Sparrow (HESP) Predicted Relative Abundance Overlayed with State Lands

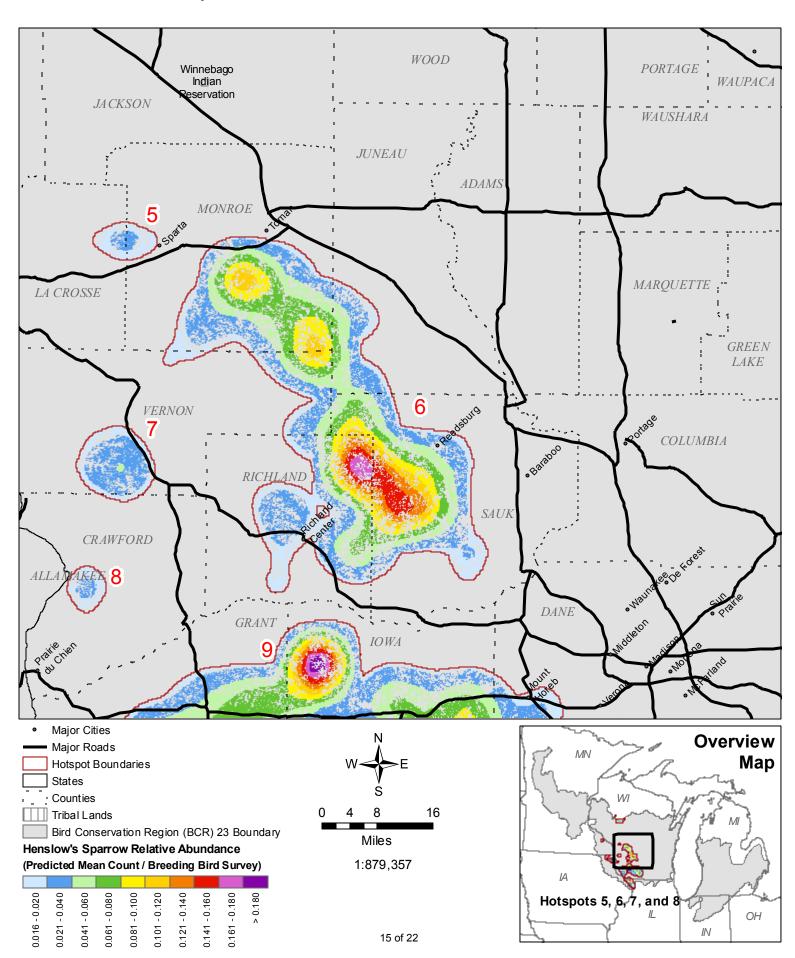


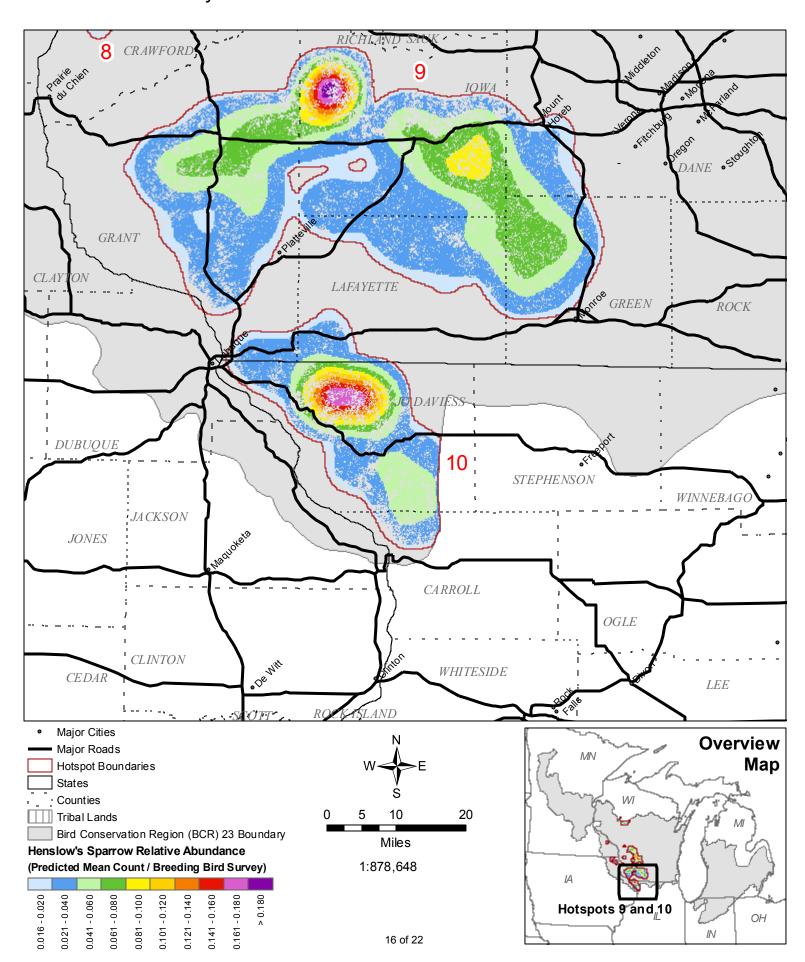












Henslow's Sparrow Predicted Relative Abundance Summary by Hotspot Federal Managed Lands Versus Lands Not Under Federal Management

			an Predi eeding E					Percent Area Managed/	Percent Sum* Managed/
Description	Area (sq km)	Min	Mean	Max	Range	SD	Sum*	Unmanaged	Unmanaged
Hotspot 1 - Unmanaged by Federal	20.95	0.00	0.01	0.03	0.03	0.01	212	100.00	100.00
Hotspot 1 - Managed by Federal	0.00								
Hotspot 2 - Unmanaged by Federal	599.77	0.00	0.03	0.08	0.08	0.02	19,748	100.00	100.00
Hotspot 2 - Managed by Federal	0.00								
Hotspot 3 - Unmanaged by Federal	131.40	0.00	0.01	0.03	0.03	0.01	2,151	100.00	100.00
Hotspot 3 - Managed by Federal	0.00								
Hotspot 4 - Unmanaged by Federal	666.45	0.00	0.01	0.03	0.03	0.01	10,584	100.00	100.00
Hotspot 4 - Managed by Federal	0.00								
Hotspot 5 - Unmanaged by Federal	97.56	0.00	0.01	0.02	0.02	0.01	1,319	100.00	100.00
Hotspot 5 - Managed by Federal	0.00								
Hotspot 6 - Unmanaged by Federal	2,869.87	0.00	0.03	0.18	0.18	0.04	109,569	99.55	99.94
Hotspot 6 - Managed by Federal	12.92	0.00	0.00	0.04	0.04	0.01	63	0.45	0.06
Hotspot 7 - Unmanaged by Federal	238.32	0.00	0.02	0.04	0.04	0.01	4,365	100.00	100.00
Hotspot 7 - Managed by Federal	0.00								
Hotspot 8 - Unmanaged by Federal	71.19	0.00	0.01	0.02	0.02	0.01	809	100.00	100.00
Hotspot 8 - Managed by Federal	0.00								
Hotspot 9 - Unmanaged by Federal	4,431.25	0.00	0.03	0.19	0.19	0.03	159,769	99.96	100.00
Hotspot 9 - Managed by Federal	1.88	0.00	0.00	0.02	0.02	0.00	2	0.04	0.00
Hotspot 10 - Unmanaged by Federal	1,377.32	0.00	0.03	0.18	0.18	0.04	51,955	99.96	99.99
Hotspot 10 - Managed by Federal	0.52	0.00	0.01	0.02	0.02	0.01	5	0.04	0.01

SUMMARY

	Sum* Total								
10,504.09	Unmanaged	360,481							
	Sum* Total								
15.33	Managed	71							
10,519.42	Total Sum*	360,552							
	10,504.09 15.33	Sum* Total Unmanaged Sum* Total 15.33 Managed 10,519.42 Total Sum*							

Total	Area		Sum* Total	
Unma	naged %	99.85	Unmanaged %	99.98
Total	Area Managed		Sum* Total	
%		0.15	Managed %	0.02

^{*} Sum refers to the cumulative predicted relative abundance values for each cell (900 sq meters) in each managed category.

Henslow's Sparrow Predicted Relative Abundance Summary by Hotspot State Managed Lands Versus Lands Not Under State Management

			an Predi eeding E					Percent Area Managed/	Percent Sum* Managed/
Description	Area (sq km)	Min	Mean	Max	Range	SD	Sum*	Unmanaged	Unmanaged
Hotspot 1 - Unmanaged by State	20.95	0.00	0.01	0.03	0.03	0.01	212	100.00	100.00
Hotspot 1 - Managed by State	0.00								
Hotspot 2 - Unmanaged by State	599.77	0.00	0.03	0.08	0.08	0.02	19,748	100.00	100.00
Hotspot 2 - Managed by State	0.00								
Hotspot 3 - Unmanaged by State	109.23	0.00	0.02	0.03	0.03	0.01	2,037	83.13	94.71
Hotspot 3 - Managed by State	22.17	0.00		0.03	0.03	0.01	114	16.87	5.29
Hotspot 4 - Unmanaged by State	636.12	0.00		0.03	0.03	0.01	10,389	95.45	98.16
Hotspot 4 - Managed by State	30.33	0.00		0.03	0.03	0.01	195	4.55	1.84
Hotspot 5 - Unmanaged by State	97.56	0.00	0.01	0.02	0.02	0.01	1,319	100.00	100.00
Hotspot 5 - Managed by State	0.00								
Hotspot 6 - Unmanaged by State	2,871.82	0.00	0.03	0.18	0.18	0.04	109,502	99.62	99.88
Hotspot 6 - Managed by State	10.97	0.00	0.01	0.06	0.06	0.01	130	0.38	0.12
Hotspot 7 - Unmanaged by State	238.32	0.00	0.02	0.04	0.04	0.01	4,365	100.00	100.00
Hotspot 7 - Managed by State	0.00								
Hotspot 8 - Unmanaged by State	71.19	0.00	0.01	0.02	0.02	0.01	809	100.00	100.00
Hotspot 8 - Managed by State	0.00								
Hotspot 9 - Unmanaged by State	4,369.67	0.00	0.03	0.19	0.19	0.03	158,782	98.57	99.38
Hotspot 9 - Managed by State	63.46	0.00	0.01	0.12	0.12	0.02	989	1.43	0.62
Hotspot 10 - Unmanaged by State	1,367.40	0.00	0.03	0.18	0.18	0.04	51,925	99.24	99.93
Hotspot 10 - Managed by State	10.44	0.00	0.00	0.06	0.06	0.01	35	0.76	0.07

SUMMARY

Total Area		Sum* Total							
Unmanaged (sq km)	10,382.04	Unmanaged	359,089						
Total Area Managed		Sum* Total							
(sq km)	137.37	Managed	1,462						
Total Area (sq km)	10,519.41	Total Sum*	360,551						

Total Area		Sum* Total	
Unmanaged %	98.69	Unmanaged %	99.59
Total Area Managed		Sum* Total	
%	1.31	Managed %	0.41

^{*} Sum refers to the cumulative predicted relative abundance values for each cell (900 sq meters) in each managed category.

Henslow's Sparrow Predicted Relative Abundance Summary by Hotspot Tribal Lands Versus Lands Not Under Tribal Management

			Mean Predicted Count / Breeding Bird Survey				Percent Area Managed/	Percent Sum* Managed/	
Description	Area (sq km)	Min	Mean	Max	Range	SD	Sum*	Unmanaged	Unmanaged
Hotspot 1 - Unmanaged by Tribal	20.95	0.00	0.01	0.03	0.03	0.01	212	100.00	100.00
Hotspot 1 - Managed by Tribal	0.00								
Hotspot 2 - Unmanaged by Tribal	599.77	0.00	0.03	0.08	0.08	0.02	19,748	100.00	100.00
Hotspot 2 - Managed by Tribal	0.00								
Hotspot 3 - Unmanaged by Tribal	131.40	0.00	0.01	0.03	0.03	0.01	2,151	100.00	100.00
Hotspot 3 - Managed by Tribal	0.00								
Hotspot 4 - Unmanaged by Tribal	666.45	0.00	0.01	0.03	0.03	0.01	10,584	100.00	100.00
Hotspot 4 - Managed by Tribal	0.00								
Hotspot 5 - Unmanaged by Tribal	97.56	0.00	0.01	0.02	0.02	0.01	1,319	100.00	100.00
Hotspot 5 - Managed by Tribal	0.00								
Hotspot 6 - Unmanaged by Tribal	2,882.79	0.00	0.03	0.18	0.18	0.04	109,632	100.00	100.00
Hotspot 6 - Managed by Tribal	0.00								
Hotspot 7 - Unmanaged by Tribal	238.32	0.00	0.02	0.04	0.04	0.01	4,365	100.00	100.00
Hotspot 7 - Managed by Tribal	0.00								
Hotspot 8 - Unmanaged by Tribal	71.19	0.00	0.01	0.02	0.02	0.01	809	100.00	100.00
Hotspot 8 - Managed by Tribal	0.00								
Hotspot 9 - Unmanaged by Tribal	4,433.13	0.00	0.03	0.19	0.19	0.03	159,771	100.00	100.00
Hotspot 9 - Managed by Tribal	0.00								
Hotspot 10 - Unmanaged by Tribal	1,377.84	0.00	0.03	0.18	0.18	0.04	51,960	100.00	100.00
Hotspot 10 - Managed by Tribal	0.00								

SUMMARY

COMMITALLY									
Total Area		Sum* Total							
Unmanaged (sq km)	10,519.41	Unmanaged	360,551						
Total Area Managed		Sum* Total							
(sq km)	0.00	Managed	0						
Total Area (sq km)	10,519.41	Total Sum*	360,551						

Total Area		Sum* Total	
Unmanaged %	100.00	Unmanaged %	100.00
		Sum* Total	
Total Area Managed %	0.00	Managed %	0.00

^{*} Sum refers to the cumulative predicted relative abundance values for each cell (900 sq meters) in each managed category.

Henslow's Sparrow Predicted Relative Abundance Summary by State Federal Managed Lands Versus Lands Not Under Federal Management

		Mean Predicted Count / Breeding Bird Survey						Percent Area Managed/	Percent Sum* Managed/
Description	Area (sq km)	Min	Mean		Range	SD	Sum*	Unmanaged	Unmanaged
IA - Unmanaged by Federal	6,982.18	0.00	0.00	0.03	0.03	0.01	29,055	96.80	99.47
IA - Managed by Federal	230.67	0.00	0.00	0.02	0.02	0.00	156	3.20	0.53
IL - Unmanaged by Federal	3,208.05	0.00	0.02	0.18	0.18	0.03	54,343	96.68	99.53
IL - Managed by Federal	110.30	0.00	0.00	0.02	0.02	0.00	256	3.32	0.47
IN - Unmanaged by Federal	13,070.80	0.00	0.00	0.01	0.01	0.00	37,497	99.68	99.91
IN - Managed by Federal	41.35	0.00	0.00	0.01	0.01	0.00	34	0.32	0.09
MI - Unmanaged by Federal	57,537.80	0.00	0.00	0.02	0.02	0.00	139,350	98.06	99.77
MI - Managed by Federal	1,139.19	0.00	0.00	0.01	0.01	0.00	317	1.94	0.23
MN - Unmanaged by Federal	49,220.50	0.00	0.00	0.03	0.03	0.00	125,865	98.73	99.31
MN - Managed by Federal	635.37	0.00	0.00	0.01	0.01	0.00	869	1.27	0.69
OH - Unmanaged by Federal	110.41	0.00	0.00	0.01	0.01	0.00	429	100.00	100.00
OH - Managed by Federal	0.00								
WI - Unmanaged by Federal	96,519.50	0.00	0.01	0.19	0.19	0.01	610,498	99.00	99.84
WI - Managed by Federal	976.24	0.00	0.00	0.04	0.04	0.00	986	1.00	0.16

SHMMARY

SOWWARI									
Total Area		Sum* Total							
Unmanaged (sq km)	226,649.24	Unmanaged	997,037						
Total Area Managed		Sum* Total							
(sq km)	3,133.12	Managed	2,617						
Total Area (sq km)	229,782.36	Total Sum*	999,655						

Total Area		Sum* Total	
Unmanaged %	98.64	Unmanaged %	99.74
Total Area Managed		Sum* Total	
%	1.36	Managed %	0.26

^{*} Sum refers to the cumulative predicted relative abundance values for each cell (900 sq meters) in each managed category.

Henslow's Sparrow Predicted Relative Abundance Summary by State State Managed Lands Versus Lands Not Under State Management

		Mean Predicted Count /					Percent Area	Percent Sum*	
		Br	eeding	Bird Sui	vey			Managed/	Managed/
Description	Area (sq km)	Min	Mean	Max	Range	SD	Sum*	Unmanaged	Unmanaged
IA - Unmanaged by State	7,046.34	0.00	0.00	0.03	0.03	0.01	28,863	97.69	98.81
IA - Managed by State	166.51	0.00	0.00	0.03	0.03	0.00	348	2.31	1.19
IL - Unmanaged by State	3,278.40	0.00	0.01	0.18	0.18	0.03	54,488	98.80	99.80
IL - Managed by State	39.95	0.00	0.00	0.06	0.06	0.00	111	1.20	0.20
IN - Unmanaged by State	12,948.40	0.00	0.00	0.01	0.01	0.00	37,281	98.75	99.33
IN - Managed by State	163.72	0.00	0.00	0.01	0.01	0.00	250	1.25	0.67
MI - Unmanaged by State	56,466.40	0.00	0.00	0.02	0.02	0.00	137,439	96.23	98.40
MI - Managed by State	2,210.56	0.00	0.00	0.02	0.02	0.00	2,228	3.77	1.60
MN - Unmanaged by State	48,427.60	0.00	0.00	0.03	0.03	0.00	124,507	97.14	98.24
MN - Managed by State	1,428.22	0.00	0.00	0.03	0.03	0.00	2,227	2.86	1.76
OH - Unmanaged by State	101.07	0.00	0.00	0.01	0.01	0.00	408	91.54	95.12
OH - Managed by State	9.34	0.00	0.00	0.01	0.01	0.00	21	8.46	4.88
WI - Unmanaged by State	94,536.00	0.00	0.01	0.19	0.19	0.01	605,634	96.96	99.04
WI - Managed by State	2,959.68	0.00	0.00	0.12	0.12	0.00	5,850	3.04	0.96

SUMMARY

COMMAN							
Total Area		Sum* Total					
Unmanaged (sq km)	222,804.21	Unmanaged	988,620				
Total Area Managed		Sum* Total					
(sq km)	6,977.98	Managed	11,034				
Total Area (sq km)	229,782.19	Total Sum*	999,655				

Total Area		Sum* Total	
Unmanaged %	96.96	Unmanaged %	98.90
Total Area Managed		Sum* Total	
%	3.04	Managed %	1.10

^{*} Sum refers to the cumulative predicted relative abundance values for each cell (900 sq meters) in each managed category.

Henslow's Sparrow Predicted Relative Abundance Summary by State Tribal Lands Versus Lands Not Under Tribal Management

		Mean Predicted Count / Breeding Bird Survey						Percent Area	Percent Sum*
								Managed/	Managed/
Description	Area (sq km)	Min	Mean	Max	Range	SD	Sum*	Unmanaged	Unmanaged
IA - Unmanaged by Tribal	7,212.85	0.00	0.00	0.03	0.03	0.01	29,211	100.00	100.00
IA - Managed by Tribal	0.00								
IL - Unmanaged by Tribal	3,318.35	0.00	0.01	0.18	0.18	0.03	54,599	100.00	100.00
IL - Managed by Tribal	0.00								
IN - Unmanaged by Tribal	13,112.10	0.00	0.00	0.01	0.01	0.00	37,531	100.00	100.00
IN - Managed by Tribal	0.00								
MI - Unmanaged by Tribal	58,154.70	0.00	0.00	0.02	0.02	0.00	138,399	99.11	99.09
MI - Managed by Tribal	522.27	0.00	0.00	0.00	0.00	0.00	1,269	0.89	0.91
MN - Unmanaged by Tribal	47,959.20	0.00	0.00	0.03	0.03	0.00	123,371	96.20	97.35
MN - Managed by Tribal	1,896.59	0.00	0.00	0.01	0.01	0.00	3,362	3.80	2.65
OH - Unmanaged by Tribal	110.41	0.00	0.00	0.01	0.01	0.00	429	100.00	100.00
OH - Managed by Tribal	0.00								
WI - Unmanaged by Tribal	96,268.00	0.00	0.01	0.19	0.19	0.01	609,978	98.74	
WI - Managed by Tribal	1,227.65	0.00	0.00	0.01	0.01	0.00	1,506	1.26	0.25

SHMMARY

COMMAN							
Total Area		Sum* Total					
Unmanaged (sq km)	226,135.61	Unmanaged	993,518				
Total Area Managed		Sum* Total					
(sq km)		Managed	6,137				
Total Area (sq km)	229,782.12	Total Sum*	999,655				

Total Area		Sum* Total	
Unmanaged %	98.41	Unmanaged %	99.39
Total Area Managed		Sum* Total	
%	1.59	Managed %	0.61

^{*} Sum refers to the cumulative predicted relative abundance values for each cell (900 sq meters) in each managed category.